EXHIBIT A

Adams, Seth

Volume 1 - 09/11/2020

Summary Proceeding with Highlighted Clips

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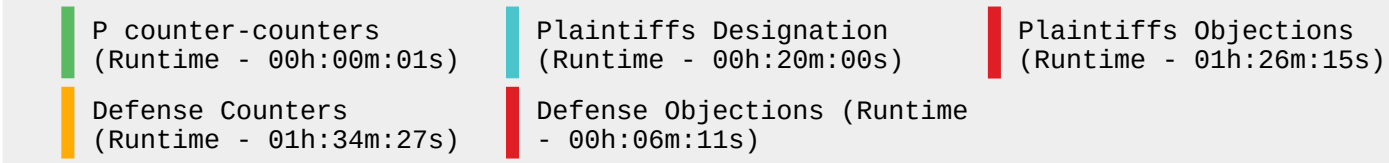

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Plaintiffs Objections 402/403 - relevance, wastes time:

SEPTEMBER 11, 2020

---oOo---

BE IT REMEMBERED that set on Friday, the 11th day of September, 2020, commencing at the hour of 8:01 a.m., taken remotely before me, Cherree P. Peterson, RPR, CRR, CSR No. 11108, a Certified Shorthand Reporter, personally appeared

SETH ADAMS,

having been called as a witness by the plaintiffs, who having been duly sworn by me to tell the truth, the whole truth, and nothing but the truth, was thereupon examined and testified as hereinafter set forth.

---oOo---

THE VIDEOGRAPHER: Good morning. My name is Rob Chang. I am a videographer associated with Barkley Court Reporters located at 10350 Santa Monica Boulevard, Suite 200, Los Angeles, California 90025.

The date is September 11th, 2020. The time is 8:01 a.m.

This deposition is taking place via remote method in regards Pacific Fraternity (sic) Center litigation, case number 3:18-cv-0186-JSC (sic). This is the videoed deposition of Seth Adams.

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Plaintiffs Objections 402/403 - relevance, wastes time:

Q. Good morning, Mr. Adams. As you heard, my name is Amy Zeman, and I'm an attorney representing the plaintiffs in this action. I'll be asking you some questions today. Do you -- have you been deposed before?

17: A. No, I have not.

Page 00010

06: Q. Mr. Adams, what's the highest educational
07: degree that you have?
08: A. A Bachelor's.
09: Q. Okay. In what subject?
10: A. Industrial engineering.
11: Q. Okay. Is that a Bachelor's of Science?
12: A. Yes.
13: Q. And when did you receive that?
14: A. December 2005.
15: Q. And did you focus in any particular area of
16: engineering for that degree?
17: A. Just -- it's an industrial engineering. So
18: just a general focus in industrial engineering.
19: Q. Okay. What does industrial engineering mean?
20: A. It's more process and business based. So
21: there's a lot more accounting and economics more so than
22: drafting and design like in mechanical.

Page 00011

Plaintiffs Objections 402/403 - relevance, wastes time:

12: Q. Do you hold any certification related to Lean
13: Six Sigma?
14: A. I have a certificate -- well, I've completed a
15: certification class. I don't have the certificate in
16: Six Sigma.
17: Q. What is that? What is Six Sigma?
18: A. Basically it's looking at your manufacturing
19: processes and the business as a whole basically driving
20: out any type of inefficiencies, waste, and then trying
21: to get your internal quality to a Six Sigma. That's

where the terminology comes from. So if you were to look at a bell curve, it would basically be 99.999ish percent quality.

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Plaintiffs Objections 402/403 - relevance, wastes time:

Q. Okay. What organization did you take that class through?

A. That was through Villanova University.

Q. Do you hold any other certifications related to your profession?

A. No.

Q. What was the first professional position you held as an industrial engineer?

A. A manufacturing engineer.

Q. Where was that?

A. That was here at Chart.

Q. Is it accurate to say your first employment after receiving your industrial engineering degree was as a manufacturing engineer with Chart?

A. Yes.

Q. Okay. And when did you begin in that position at Chart?

A. Around Mayish of 2005.

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Plaintiffs Objections 402/403 - relevance, wastes time:

Q. And at what location did you begin working at in May of 2005?

A. That was here in Ball Ground, Georgia.

Q. And what was the -- what were your responsibilities as a manufacturing engineer?

A. Primarily looking at the process. We -- reviewing assembly operations for liquid oxygen dewars

just trying to decide if there were opportunities to improve or document what was going on, looking at fixture design and also floor layouts just for floor space utilization.

Q. Does Chart have a single facility in Ball Ground, Georgia?

A. No.

Q. How many facilities do they have in Ball Ground?

A. We currently have two facilities.

Q. What are the two facilities?

A. One is 1300 Airport Drive and the other is 3055 Torrington Drive.

Q. And what type of products are handled at 1300 Airport Drive?

A. 1300 is what we call our packaged gas. So CO2 tanks, nitrogen, argon, basically smaller bulk tanks as we call them.

(continued page 00014)

Q. And what products are handled at 3055 Torrington?

A. Those would be -- yeah, Torrington. Sorry. Those are the freezers. The cryogenic freezers.

Q. And what is a cryogenic freezer?

A. It's just a large tank with an opening for customers to store whatever product needs to be stored at a cold temperature but not actually immersed into the liquid itself.

Q. Are the MVE 800 series tanks cryogenic freezers?

12: A. Yes.
13: Q. And are the MVE 800 series tanks produced at
14: the 3055 Torrington location?
15: A. Yes.
16: Q. Are they produced anywhere else?
17: A. No.
18: Q. Which of the two facilities did you start
19: working at in May of 2005?
20: A. That was the 1300 facility.
21: Q. All right. And are you still a manufacturing
22: engineer?
23: A. No.
24: Q. When did you cease to have that role?
25: A. In 2010 I took a production manager role.

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Plaintiffs Objections 402/403 - relevance, wastes time:

01: Q. While you were a manufacturing engineer at
02: Chart, were you located at the 1300 Airport Road
03: facility for the duration?
04: A. Yes.
05: Q. Did you work with the cryogenic freezers at any
06: time as a manufacturing engineer?
07: A. No.

Page 00015

10: What was the next position you held at Chart?
11: A. I was a process engineering and CI manager.
12: Q. Is that essentially two positions that you held
13: at once or a single position?
14: A. Basically it's two positions kind of rolled
15: into one.
16: Q. Okay. What is a process engineer?

A. So we look at the process, again, sort of what I was doing as a manufacturing engineer just trying to streamline the process, make our throughput more efficient, you know, reduce delivery times and improve the process through fixturing or ordering new equipment or whatever the necessity is to keep production going.

Q. And what does the CI manager do?

A. So the CI is what we call continuous improvement. So we looked at leveraging newer

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technologies. Me personally, I was involved in looking at other facilities as well and standardizing processes between multiple facilities.

Plaintiffs Objections 402/403 - relevance, wastes time:

Q. And were you in -- working in Ball Ground, Georgia, as a process engineer and CI manager?

A. Yes.

Q. Which of the two facilities were you at?

A. Primarily at that time I was in a facility that Chart no longer owns. It's the -- it was the 2205 building. It was CAIRE Respiratory.

Q. How long have the -- has cryogenic freezer production occurred at the 3055 location?

A. Approximately two and a half years maybe.

Q. Where did that production occur prior to that?

A. That was in the 2205 building.

Q. And so did the cryogenic freezer production move from the 2205 location to the 3055 location in approximately early 2018?

A. It would have been the end of 2016.

Q. All right. Do you know what month you started

as a process engineer and CI manager?

A. I don't recall that.

Q. Do you recall what time of year roughly?

A. Winter.

Q. Okay. And when -- are you still a process

(continued page 00017)

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engineer and CI manager at Chart?

A. No.

Q. When did you last hold the position of process engineer and CI manager?

A. February of 2019.

Plaintiffs Objections 402/403 - relevance, wastes time:

Q. And from 2010 through February of 2019 you were primarily working at the 2205 location?

A. Correct.

Q. Did you switch to the 3055 location in late 2016?

A. I did not.

Q. Where did you work from the end of 2016 until February of 2019?

A. I was in the 2205 building.

Q. Oh, I see. And does -- did you say Chart no longer has the 2205 location?

A. Correct.

Q. When did they cease to control that facility?

A. In 2018.

Q. And where did you work from that time until February 2019?

A. That would be the 3055 building.

Q. So you switched to the 3055 location sometime in 2018?

A. Yeah. The fall of 2018 I came up to the 3055

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0018

building.

Page 00018

Q. What were your general responsibilities as a process engineer and CI manager?

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A. Day to day basically monitoring multiple projects. We had a lot of different products that were being moved from various facilities, again kind of project management tasks, and then making sure that my own team of engineers were executing those tasks.

Q. Were your -- was the members of your team of engineers, were those mechanical engineers?

A. Yes.

Q. Were they -- were there any other types of engineers on your team?

A. No.

Q. And were the mechanical engineers working directly with the products?

A. Yes.

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Q. And what position did you hold after process engineer and CI manager?

A. That's operations manager.

Q. Is that your current position?

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0020

A. Yes.

Plaintiffs Objections 402/403 - relevance, wastes time:

Q. And what are your responsibilities as an operations manager?
A. Basically to monitor daily production, staffing requirements, scheduling, ensuring that we're hitting particular metrics such as on-time delivery, efficiency, and in watching to keep our costs, our operating income at an optimal level.
Q. Do you oversee one of the two facilities in Ball Ground?
A. Yes. Just the 3055.
Q. And do you oversee the entire facility?
A. Yes.
Q. Are you responsible for the production of cryogenic freezers?
A. Yes.

Plaintiffs Objections 402/403 - relevance, wastes time:

Q. What does that mean to you?
A. I'm responsible to ensure that they are built in a timely manner with the highest level of quality.
Q. How do you ensure they have the highest level of quality?
A. So we have various internal quality checkpoints that the freezers have to pass through and be accepted.
Q. Do you monitor those checkpoints?
A. Yes, we do.

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0021

Q. Do you personally?
A. I get a report daily telling me the performance.
Q. Does that report indicate performance on particular factors?
A. What kind of factor?

Q. I'll ask a different way. Could you describe what the daily report looks like?
A. Yeah. It has basically -- it's based on NCRs and nonconforming reports. So if a piece of material needs to get scrapped, that would go on our NC -- NCR log. That would show up on that report.
And then we also have a helium leak detection check that would show up on the report if it had an issue at any point during helium leak detection.
And then the final checkpoint is a physical QC inspection which is more of a visual inspection. And there are some slight measurements taken like on a Brooks Automation, for instance.
Q. Does the 3055 facility produce anything other than cryogenic freezers?
A. No.
Q. What are some of the features that are looked for during the physical QC inspection?
A. Those would be visual defects such as any

(continued page 00022)

blemishes on the outside of the freezer, a dent or a scratch, any alignment of any of the plumbing features that may be mounted on the top or in the back cabinetry section, labeling, even into crating just to ensure that all the spare components went into the crate as expected.
Q. What is the helium leak detection that's done during the QC process?
A. So what the helium leak detection does is verify that all of the weld joints are leak tight, and

basically that ensures that we're going to have a sufficient vacuum.

Q. Is that done on every cryogenic freezer that comes out of that facility?

A. Yes. 100 percent.

Q. At what stage of production does the helium test occur?

A. What we would call a semi-final stage.

Q. Is the helium introduced into the vacuum space of the tank?

A. No. The vacuum is pulled on the vacuum space of the tank and helium is introduced around the outside of the vessel as well as into the interior where, like, the customer would be storing product.

Q. And how do you go about searching for a leak?

(continued page 00023)

A. The basics are they use the equipment to pull a soft vacuum. And then they -- the operator will use a tiny hose spraying the helium around every single weld joint or anywhere we think there could possibly be a leak, and then the detector will alarm if it senses any helium coming through.

Q. Where is the detector located during the test?

A. It's attached to a manifold that's physically pulling the soft vacuum on the freezer.

Q. Is the vacuum pulled again during the process to finalize the tank production?

A. Yes.

Q. Is it fair to say the detector is essentially in the vacuum space?

A. I don't know.
Q. Okay. Can you walk me through the general order of production for a cryogenic freezer?
A. Sure. First we take in raw sheet. We'll roll that sheet into cylindrical shapes, place what we call a long seam weld on that. It is then introduced into head fabrication. There's a top head and bottom head both for an inner and an outer. We will make the inner, wrap that with insulation and drop that into an outer vessel. Upon that time we'll then put a outer top head on, and that sort of basically built -- completes the dewar. At

(continued page 00024)

that point that's welded into location. Then we'll send it through what we call our polishing operation. That's what puts the pretty finish on it. Then we'll go into the helium leak detection. From there we'll do any final welding that needs to be done external, like a bracket or a handle that could not go through the polishing process. After that it will go into our evacuation, the vacuum process.
Once it comes out of evacuation, they'll go ahead and start plumbing the unit, attaching the electronics that need to go on it, place any labeling. There's one model that gets a different caster. And then from that point we go through the QC inspection again visually. And then it goes into the crating. And once it's crated, it goes into the warehouse.
Q. What do you mean by plumbing the unit?
A. So there's external plumbing that is used where the customer will actually fill the unit with liquid

nitrogen. So there's some copper tubes, fittings, and whatnot that actually connect into the freezer, if you will.

Q. And what electronics are attached to the tanks?

A. There is a few valves and a controller. The valves basically open and close and are driven by the controller.

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0025

Q. Does Chart equip tanks with a TEC 3000 controller?

A. Some models, yes.

Q. Is that TEC 3000 controller still used today at Chart?

A. Yes.

Q. Is there a touch screen version of the controller?

A. Yes.

Q. What's the name of that model?

A. Touch screen.

Q. Okay. Is it sometimes referred to as the TS controller?

A. Yes.

Plaintiffs Objections 402/403 - relevance, prejudicial (see Chart's Response to RFA Set 5 Nos. 1 and 2 - TS kit was available as of 1/1/18):

Defense Counters Contingent on whether evidence about Touch Screen controller admissible as it was not yet available to Chart customers in March 2018:

Q. How long has the touch screen controller been on the market?

A. I don't know.

Q. I'm sorry. I didn't hear your answer.

A. I don't know.

Q. Do you have an approximation?

A. No, I don't.

Q. But some tank models are currently equipped

with the touch screen controller?

A. Yes.

Defense Objections Objection -- Touch Screen controller irrelevant to the case; not yet available for Chart customers as of March 2018:

Q. Are there annular lines including on the MVE

(continued page 00026)

800 series tanks?

A. Yes.

Q. When are those annular lines added to the tank within the production process you outlined?

A. Right after -- it's part of the inner vessel fabrication.

Plaintiffs Objections 402/403 - relevance, wastes time:

Q. And are the annular lines attached to the inner vessel?

A. Yes.

Q. Are they attached via a fitting?

A. No.

Q. What are they attached via?

A. With a weld.

Q. What is welded to attach the annular lines to the inner vessel?

A. I'm sorry. Can you repeat that?

Q. What is welded to attach the annular lines to the inner vessel?

A. There is a fitting that gets welded to the inner shell.

Q. Is that fitting located at the bottom of the annular lines?

A. Yes.

Q. And there's a sensor line and a fill line; correct?

(continued page 00027)

0027

A. I believe so, yes.

Plaintiffs Objections 402/403 - relevance, wastes time:

Q. And are those the only two annular lines on the MVE 800 series?

A. I'm not sure, but I believe so.

Q. Okay. For the fill line, is the fitting that attaches that line to the inner vessel located at the bottom of the fill line?

A. Yes.

Q. And at what point in the production is the fitting attached to the fill line?

A. It would be during the inner vessel fab that's kind of all done at the same time.

Q. What's the order of production though as far as the fitting being attached to the tube and then the fitting being attached to the inner vessel?

A. The fitting would be attached to the tube first, then the fitting and tube would be attached to the vessel.

Q. And is there a single weld that attaches the fitting to the inner vessel?

A. Yes.

Q. Is there anything else that attaches the fitting to the inner vessel?

A. No.

Q. Is it important that that fitting remain

(continued page 00028)

0028

attached to the inner vessel?

A. Yes.

Q. Why is it important?
A. It's the fill line. If that weren't attached, you wouldn't be able to fill. You wouldn't have a vacuum.
Q. So if the fitting became detached from the inner vessel, you would not have a vacuum?
A. Well, I would assume you probably lost your vacuum, and that's why the fitting would come loose. It shouldn't just come loose.
Q. What keeps the fitting from coming loose?
A. The weld.

Plaintiffs Objections 402/403 - relevance, wastes time:

Q. How long does it take to manufacture a cryogenic tank?
A. It varies from model to model.
Q. How long does it take to manufacture an MVE 800 series tank?
A. I don't know the exact time that that takes.
Q. What's the approximate time?
A. It probably takes about a day to manufacture the vessel prior to going into buffing.
Q. And is buffing the polishing stage?
A. Yeah, the polishing. Yeah. Sorry.
Q. No problem. And then would it be perhaps

(continued page 00029)

another day to finish the helium leak testing and any other steps of the production process?
A. You have a few days. The vacuum process takes a few days to do. The helium leak detection is only -- it takes approximately a half an hour to do that.
Q. Is it fair to say a MVE 800 series tank could

be manufactured within a week?
A. That's pretty fast. So no.
Q. Could it be done within two weeks?
A. Yes.
Q. How many MVE 800 tanks does Chart manufacture each month?
A. I don't know.
Q. Do you have an approximation?
A. I would have to research that to tell you. We have a lot of different models.
Q. How many cryogenic freezers does Chart manufacture in a month?
A. Usually around about 100 a month.
Q. And approximately how many models does Chart manufacture out of the 3055 facility?
A. There is -- do you want, like, part number count or just general?
Q. General tank models.
A. General tank models is probably 20 models.

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0030

Q. Are there different stations for the production process?
A. Yes.
Q. How many stations are there?
A. I don't know offhand.
Q. Do you know an approximation?
A. It would -- it would take me a few minutes to come up with that number.
Q. Okay. So as a tank is being produced, does it move between different stations?

A. Yes.
Q. Does each station have a different team working it?
A. It's different personnel, yes.
Q. How many individuals touch a tank from the start of production to completion?
A. That varies by the model.
Q. How many people touch the MVE 800 series during production?
A. We probably have approximately five people.
Q. What are the roles of the approximate five people that would be involved in producing a MVE 800 series tank?
A. Primarily they would be a welder, we have one person that does the helium leak detection, and then we

(continued page 00031)

have the final crew which are not welders. They're just generalists.
Q. Is it generally a single welder working on an individual tank?
A. It depends on the operation and the model.
Q. What about for the MVE 800 series?
A. It's probably two to three welders that would be working on that one.
Q. Does the MVE 800 series include the MVE 808?
A. I would consider the 808 an open top and an 800 series an HE model. And those are not the same freezer.
Q. Okay. Is the 808 -- is the MVE 808 part of the MVE stock series?
A. I'm not familiar with the term "stock series."

Q. Okay. Is open top a series of freezers at Chart?
A. Yes.
Q. What models does that include?
A. The 808 you speak of and there's a handful of other models as well.
Q. Do you remember any of the others?
A. Yes.
Q. Can you name those?
A. Sure. 1426, a 205, 1839.
Q. Any others?

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0032

A. I think that's probably most of them.

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Plaintiffs Objections 402/403 - relevance, wastes time:

Q. How many welders would be involved in the production of an open top tank?
A. That would be the three I mentioned earlier.
Q. And earlier when we were discussing the annular lines, I think we may have been talking about those in terms of the MVE 800 series. Would everything you described about the order of production for the annular lines earlier apply to the open top tanks?
A. The 800 series, what I would refer to as an HE freezer, would actually have annular lines welded slightly differently than an open top series.
Q. Okay. So what you described earlier is the process for connecting the annular lines in an open top freezer?
A. Yes.

Q. And for an open top freezer is it approximately five people that would touch that tank during the production process?
A. Approximately, yes.
Q. Are the production stations located in the same

(continued page 00033)

space?
A. The same facility general floor space, yes.
Q. Is all of the production on a single floor?
A. Yes.
Q. Are there multiple welding stations?
A. Yes.
Q. How many?
A. I would have to go out and count that to tell you.
Q. Is it more than ten?
A. For just the open top or for everything?
Q. For the open top.
A. It is not more than ten, no.
Q. How many is it for the open top?
A. Again, I'd have -- I'd have to count. It's less than ten, but I couldn't tell you an exact number.
Q. Okay. Do you think it's less than five?
A. It's probably close to five.
Q. How are the welding stations equipped?
A. How do you mean "equipped"?
Q. Is there a single welding machine at each welding station?
A. Depending on the operation, yes, typically one welding machine per each station.

25: Q. What operations would have more than one

(continued page 00034)

0034

01: welding machine in the station?
02: A. For some of our freezers that get lazy Susans
03: we actually have aluminum welders and stainless welders.
04: Q. Does the -- do the welding stations for the
05: open top freezers have more than one welding machine?
06: A. No. Probably not.
07: Q. And is the one welding machine for the open top
08: freezer a stainless steel welder?
09: A. Yes.
10: Q. Is the same type of welding machine used
11: throughout the production of a single open top freezer?
12: A. Yes.
13: Q. What type of welding machine is currently used
14: for the open top freezer?
15: A. We typically use Miller welders.
16: Q. Because you say typical or "typically," are
17: there instances where you would not use a Miller welder
18: on an open top tank?
19: A. If a welder were to go down, we would take one
20: out of our spare rotation. And there are other -- we
21: have another one, but that's only been in recent time.
22: Typically we are Miller only.
23: Q. How long has that been the case?
24: A. That we are Miller only or that we have others?
25: Q. That you are generally Miller only.

(continued page 00035)

0035

01: A. For as long as I can recall.

Q. And how long have you had other non-Miller welders available?
A. Probably only in the last six to eight months.
Q. And Miller is the manufacturer of the welding machine; correct?
A. Correct.
Q. Are there any other distinctions among the different welding machines other than the manufacturer?
A. The size, the amperage. That's about it.
Q. Do they all use the same welding material?
A. Yes.
Q. Why are there different size welding machines?
A. Basically it's for duty cycle. So you're using amperage volts to create electrical current when you're welding. So the longer your weld, the more duty cycle that you need. Or basically it's an electronic device that will burn itself out. You can't weld.
Q. Got it. The individuals who operate the welding machines, are those referred to as welders?
A. Yes.
Q. How many welders does Chart employ at the 3055 location?
A. Approximately 20.
Q. Do all of those welders work on the open top

(continued page 00036)

freezers?
A. No.
Q. Approximately how many work on the open top freezers?
A. They're -- again, there's three in the process

and maybe five in the facility that we would put there.

Q. Okay. So three who regularly work on them and then another two who might work on it occasionally?

A. Yes. We have floaters since we run lean.

Q. What's the official title for the welders?

A. They are either a Welder I or a Welder II.

Q. What does it mean to be a Welder I?

A. The welder is -- it's really just based on tenure, how long you've been here.

Q. And is I more or less tenure?

A. Less.

Q. How much tenure would a welder need before they became a Welder II?

A. I don't know the exact time. It's based on a pay scale and a schedule.

Q. And are those the only two titles that welders would hold at the 3055 facility?

A. Yes.

Q. Who are the three welders that currently work on the open tops -- open top freezers?

(continued page 00037)

A. Like, you mean, you want their names of the actual operators?

Q. Correct.

A. There would be a Mark Ingram and a Tiffany Shuller. I'm not sure who our third floater is currently. We just -- we just lost a guy two weeks ago that was our other person.

Q. What was the second name that you said? I heard the last name that I think Shuller, but I didn't

catch the first name.

A. Tiffany Shuller.

Q. And do Mark and Tiffany work predominantly on the open tops or are they floaters?

A. Predominantly open top.

Q. And then the third person whose name you don't recall, was that worst -- person working predominantly on open top or was that person a floater?

A. He was primarily a floater. He was just backfilling for us.

Q. And then you had mentioned there might be another two individuals who were floaters who might sometimes work on open tops. Who are those individuals?

A. One is Cole Anderson. And the other one just left last Friday. Brian Millsap.

Q. How long has Mark Ingram been with Chart?

(continued page 00038)

A. I don't know.

Q. Is it a long time?

A. It's a while. I honestly don't know.

Q. Sure. Has he been there as long as you've been at the 3055 facility?

A. Yes.

Q. Has he been there as long as you've been with Chart?

A. That I don't know.

Q. And how long has Tiffany been with Chart?

A. I don't know the exact time for her either.

Q. Has it been as long as you've been with Chart?

A. No.

14: Q. Has it been at least as long as you've been at
15: the 3055 location?
16: A. Yes.

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Plaintiffs Objections 402/403 - relevance, wastes time:

10: Q. BY MS. ZEMAN: Mr. Adams, who determines the
11: assignments for the different welders at the 3055
12: facility?
13: A. That would be the supervisor.
14: Q. Who's the supervisor?
15: A. Currently that is Kyle Eubanks.
16: Q. How long has Kyle Eubanks been the supervisor?
17: A. I don't know.
18: Q. Has it been a few years?
19: A. Yes, a few years.
20: Q. Has it been more than a decade?
21: A. No.
22: Q. What is Kyle's full title?
23: A. I believe it's production supervisor.
24: Q. And what are the responsibilities of the
25: production supervisor?

(continued page 00041)

0041

01: A. Basically to monitor day-to-day activities,
02: employee assignment, just ensuring the product continues
03: to move on schedule.
04: Q. Does Kyle report to you?
05: A. Currently, yes.
06: Q. Did he previously report to someone else?
07: A. Yes.
08: Q. Was that before you became the operations

manager?

A. No.

Q. When did he start reporting to you?

A. Approximately March this year.

Q. Who did he report to before that?

A. Timothy Logan.

Q. Why did that reporting structure change?

A. We had a reduction in force, and Timothy Logan's role of production manager was eliminated.

Q. What were the responsibilities of the production manager?

A. A hybrid of both mine and the production supervisor more or less to support the supervisor, work with HR for staffing needs. Again, keeping product moving down the line to meet on-time delivery and also monitoring any day-to-day safety needs or activities and also any CI opportunities.

(continued page 00042)

Q. And would the production supervisor determine who works predominantly on open tops versus some other projects?

A. Yeah, he probably would. Yes.

Q. And would the production supervisor determine what specific tasks a floater would be assigned to?

A. He and the production manager together, yes.

Q. Do the welders report to the production supervisor?

A. Yes.

Q. Do they report to anyone else?

A. No.

Q. Does Chart require any particular qualifications for its welders?
A. They do have to pass a weld test.
Q. Is that a weld test administered by Chart?
A. Yes.
Q. Where is that test administered?
A. Typically in the 1300 building.
Q. Can you describe the test generally?
A. Not very well. I'm not 100 percent familiar with how they do that.
Q. Okay. Is it something that takes place over several days?
A. Typically the test takes a few hours.

(continued page 00043)

Q. Is it a practical test in the sense that the welders have to actually weld material?
A. Yes.
Q. Are there any other requirements for the welders employed by Chart at the 3055 location?
A. Other than the test, no.
Q. Are there any educational requirements?
A. Yes.
Q. What's the education required for the welders?
A. They have to have a high school diploma or a GED.
Q. Anything higher than that?
A. No.
Q. Are they required to have any welding certifications other than passing Chart's test?
A. No.

Q. Does Chart issue some sort of certification if a welder passes the Chart test?
A. Not an official certificate, no.
Q. Is a welder considered certified if they pass the Chart weld test?
A. I believe so, yes.
Q. Are there any continuing training obligations once a welder passes the Chart weld test?
A. For our product, no.

Page 00047

Plaintiffs Objections 106 - incomplete excerpt; 402/403 - relevance, wastes time:

Q. Okay. Who create -- who generates work orders?
A. That would be our scheduler.
Q. Who is that?
A. For us that's Teresa Parmer.
Q. Have you seen work orders for open top tanks?
A. Not directly. I'm sure I have on the floor though, yes.
Q. You're confident that there are work orders in existence for open top tanks?
A. Yes.
Q. Have you seen work orders for the MVE 808?
A. Not the 808 specifically.
Q. Would there be work orders for the MVE 808

(continued page 00048)

0048

specifically?
A. Yes.
Q. In order for any tanks to have been produced as MVE 808s, they would have had to have work orders generated; correct?

A. Correct.
Q. How would you locate past work orders for MVE 808s?
A. I would have to ask our scheduler how to do that.
Q. Have you asked the scheduler in the past to provide work orders to you for past orders?
A. For past orders, no.
Q. Okay. For current orders?
A. Typically if we want to see what's on the schedule, yes.
Q. Are orders saved within Chart's electronic systems after issuance?
A. I don't know.
Q. Do you think they are?
A. I think they are.
Q. Is a work order utilized in the production process of open top tanks?
A. Yes.
Q. Are work orders utilized in the production of

(continued page 00049)

the MVE 808 tanks?
A. Yes.
Q. Are work orders utilized in the manufacture of MVE 808 tanks?
A. Yes.
Q. Is a work order another term for a bill of material?
A. No.
Q. What's a bill of material?

A. A bill of material is a long list of parts, but it is a complete list of parts. So it would also have those MRO items that I mentioned earlier. It also has structure.

Q. What is structure?

A. The work order part list you have shown is just all of the parts, but it doesn't tell you where the parts go. The structure tells you if certain parts go together to make a subassembly within the entire construction of the freezer.

Q. Is there a bill of material for the MVE 808?

A. Yes.

Q. Is there a single bill of material for the MVE 808?

A. No. There's multiple.

Q. Why are there multiple?

(continued page 00050)

A. I'm sure there's multiple finished part numbers of 808s.

Q. Would there be a bill of material for each finished part number?

A. Yes.

Q. Would there be more than one bill of material for each finished part number?

A. No.

Q. How would you go about locating the bill of material -- all of the bill of materials for the MVE 808?

A. I would -- excuse me. I would need all of the final part numbers. And I would put them in our E1

system and search the bill of material.

Q. And what's the format for a bill of material?

A. How do you mean "format"?

Q. Is it a Word document?

A. No. This E1 is -- it's a module of its own.

And it basically looks like an Excel table, but it's not a document that gets produced, no.

Q. Can you download a bill of material from the E1 system?

A. Yes.

Q. If you did so, what format would the document be in?

(continued page 00051)

A. An Excel spreadsheet.

Q. And is the title of that document bill of material?

A. It won't have a title. That's for you to establish when you save it if you download to Excel.

Q. Within the document that you download would there be any title in the header or at the top of the document?

A. Yes. There would be a description. And that would be based off the final part number and how that's identified in E1.

Q. Would the description include the term bill of material?

A. No, it would not.

Q. What do you mean when you say the description would be based off the final part number?

A. So the -- it would be -- however we name the

product. So if we call it a Final 808 MVE Series, that's what the description would be and that's what would tie to that part number.

Q. Would the term "bill of materials" show up anywhere in the downloaded document?

A. No.

Q. Would BOM appear anywhere in the document?

A. No.

(continued page 00052)

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Q. If you were looking at a document, how would you know whether it was a bill of material or not?

A. For me, I would see a level. So that structure I had mentioned earlier would tell me if it's a level one or level two. And when I see levels, I know that's a bill of material.

Q. What do you mean by "level"?

A. Level one would be a final assembly. Level two would be the major subassemblies that create that. Level three would be smaller pieces that make those subassemblies. So....

Q. And would, for instance, level one appear within the document?

A. Yes.

Q. What are bill of materials used for?

A. Many, many things.

Q. What are some examples?

A. One good example of a bill of material is just to make sure that our quantity, our usage is correct so that balances our inventory properly.

Q. What's another example?

22: A. Just to make sure that we have all of the
23: correct parts called out for that particular product and
24: to ensure that it gets built as designed or as the
25: customer wants.

(continued page 00053)

0053

01: Q. Do any other examples come to mind?
02: A. Not offhand, no.
03: Q. Are -- how often is a bill of material updated?
04: A. It's on a as-needed basis.
05: Q. In general how often is a bill of material
06: updated?
07: A. That varies on the product.
08: Q. Could it be as often as once a year?
09: A. It could be, yes.
10: Q. Could it be more frequent?
11: A. It could be, yes.
12: Q. Is it usually more frequent?
13: A. Probably not, no.
14: Q. Is a bill of material a design document?
15: A. I don't know that I would call it that.
16: Q. How would you characterize it?
17: A. A parts list. It's a bill of material. I
18: don't know how else I would characterize it.
19: Q. Did you say it's a parts list?
20: A. Basically, yes.
21: Q. Is a bill of material utilized in the
22: manufacture of open top tanks?
23: A. Do you -- how do you mean?
24: Q. Is it utilized in any part of the manufacture
25: of open top tanks?

(continued page 00054)

0054

A. It can be referenced. It's not used day to day.

Q. But it can be referenced in the manufacturing process?

A. Absolutely.

Q. Are bills of materials sometimes referenced in the manufacturing process of open top tanks?

A. I don't know.

Q. Would you expect it to be?

A. Yes.

Q. Does Chart keep any other documents that you would characterize as a parts list?

A. Just that bill of material or the work order that you displayed.

Q. Anything else?

A. Not that I can think of, no.

Page 00061

Plaintiffs Objections 402/403 - relevance, wastes time:

Q. Do you know what welding machine is currently used in the production of the MVE 808?

A. No. I would -- I would have to go look at it

(continued page 00062)

0062

to see.

Q. Would you need to look at the actual production stations?

A. Yes.

Q. Would the welders know which machines are used on the MVE 808?

A. Well, they would look at their station. They would be at the welder. But they wouldn't know offhand.
Q. Does -- let me rephrase that. Are T-I-G welders used in production of the MVE 808 currently?
A. Yes.
Q. Is that typically referred to as a TIG welder?
A. Yes.
Q. What does T-I-G stand for?
A. I believe it's tungsten inert gas.
Q. Can you explain how a TIG welder works?
A. Real crudely, you have a tungsten tip and you're shooting electricity through that tip into the metal and the electricity is melting the metal.
Q. And is the goal of that TIG welding to fuse together two metal surfaces?
A. Yes.
Q. Are the TIG welders used by hand?
A. Yes.
Q. And are all of the welds on the MVE 808

(continued page 00063)

completed by hand?
A. I believe so, yes. With exception of one.
Q. What's the one exception?
A. The long seam.
Q. Is that on the outside of the outer vessel?
A. Both the inner vessel and the outer vessel where the shell rolls around to make a cylinder, where that joint is, that's what we call the long seam.
Q. Does Chart also use M-I-G welders?
A. Yes.

Q. Is that called a MIG welder?
A. Yes.
Q. Are MIG welders used to manufacture the MVE 808?
A. I don't believe so.

Page 00064

Plaintiffs Objections 602 - speculation; 402/403 - relevance, wastes time:

Is there a procedure at Chart for how to apply a weld on the MVE 808?
A. There's procedures for how to assemble the tanks, yes.
Q. Would those procedures include welding instructions?
A. They may.
Q. Are you not sure whether they do?
A. I'm not sure.
Q. Are there procedures for how to apply a weld to open top tanks?
A. I don't -- I don't -- I don't know.
Q. Are there general welding procedures at Chart?
A. General as in -- what do you mean general? Like overall how to weld or?
Q. Correct.
A. I don't know if there's a general how to weld procedure.
Q. Are there any procedures effective at the 3055 facility regarding what types of welds should be used on Chart products?
A. I don't know that the procedures tell you which weld to use, whether MIG or TIG.
Q. Are there different types of -- sorry. Let me

back up.

(continued page 00065)

0065

Are there different types of weld styles?

A. Styles as in application or as in the welder itself?

Q. Application.

A. I mean, between automated or by man, those are the only two.

Q. Are there written procedures for how to assemble an MVE 808?

A. I don't know for the 808 specifically, but we do have written procedures, yes.

Q. Are there written procedures for how to assemble an open top tank?

A. There should be some, yes.

Q. How would you go about finding such a document?

A. I would go into MasterControl and search the vault for cryo and look for the active work instructions.

Q. How would the procedures for how to assemble an open top tank be titled?

A. It would be titled by a general name for the operation it's speaking to.

Q. Would it be categorized as production procedures?

A. For us to find it in MasterControl, yes, when I use that term "vaults," that would be the categories

(continued page 00066)

0066

that we would chase.

Q. What are vaults within the E1 system?
A. It's basically an organizer like a network to help navigate to help find the work instruction you need.
MR. DUFFY: Amy, I think you may have misspoke. You said E1. He's talking about MasterControl.
THE WITNESS: Oh, I'm sorry. Yes. Master --
MR. DUFFY: I just want to make sure we're talking about the same thing.
MS. ZEMAN: Yep. I appreciate that clarification.
Q. So within MasterControl there are vaults?
A. Yes.
Q. And the vaults are ways of organizing the documents?
A. Yes. Folders.
Q. I was going to say, to a layperson they're effectively folders?
A. Yes.
Q. Okay. And the vault where the procedures for how to assemble an open top tank would be located would be the -- I forgot my own language here -- the production procedures vault?
A. It would be production, yes.

(continued page 00067)

0067

Q. Would there be a subvault within production?
A. Yes. It would be cryo.
Q. And any subfolder within cryo?
A. This one in particular would be inner outer.
Q. What do you mean by "this one in particular"?

A. For a open top freezer.
Q. And would there be procedures for each different model of open top or a single procedure for all open tops?
A. Mostly a single procedure, unless there was something drastically different on a model.
Q. Are you aware of any procedures other than the general open top for open top freezers?
A. No.
Q. If there are welding procedures for open top tanks, would those be included in this inner outer subvault?
A. Yes.
Q. Is it possible they would be located anywhere else?
A. I don't think so.
Q. Have you seen any written welding procedures for Chart?
A. Yes.
Q. Can you describe those?

(continued page 00068)

A. It would be generally, you know, if it's tack weld two pieces together to hold or whatever the assembly stage may be before, you know, welding a component on or two pieces together.
Q. When have you seen those?
A. At different times.
Q. What was the context for seeing them?
A. Most recently reviewing one for accuracy due to a customer change.

Q. The one that you looked at most recently, was that related to open top tanks?
A. No, it was not.
Q. Did it apply to open top tanks?
A. No, it did not.
Q. Have you ever looked for welding procedures at Chart?
A. Yes.
Q. Have you looked for welding procedures for open top tanks?
A. Yes.
Q. When?
A. It's been a while since I've looked.
Q. Was it within the last year?
A. Oh, yeah.
Q. Why were you looking for them?

(continued page 00069)

0069

A. The most recent one would have been for I think we had a co-op working on some just to make sure he had everything in that cell documented correctly. That the numbers were right.
Q. What's a co-op?
A. A co-op is an intern.
Q. And what does it mean to have everything in that cell documented correctly?
A. We had noticed that the shell rolling procedure was in a procedure for our HE models. So we wanted to break that out and make the open top one specifically stand alone.
Q. Any other instances where you searched for

welding procedures for open top tanks?

A. Earlier this year Jeff Brooks had requested I try to find some for him as well.

Q. Where did you look to find those for Jeff Brooks?

A. MasterControl.

Q. Where within MasterControl?

A. The vaults that I mentioned to you earlier.

Q. Did you find any?

A. I don't recall being able to find what he -- we found the current active revisions.

Q. You did find the current. What are the current

(continued page 00070)

0070

active revisions?

A. I don't recall offhand.

Q. Does current active revisions refer to the currently applicable procedure?

A. Oh. Yes. In that case, yes, they are the active today versions.

Page 00070

Plaintiffs Objections 602 - speculation; 402/403 - relevance, wastes time:

Q. Did the procedures you found apply to the MVE 808?

A. They probably would have, yes.

Q. If they applied to open top tanks, they would

(continued page 00071)

0071

have applied to the MVE 808; correct?

A. Most likely.

Q. Do you remember the titles of those documents?

A. That I do not, no.
Q. Did you look anywhere other than MasterControl for those documents?
A. I don't believe so, no.
Q. Did you tell Jeff Brooks that you had found procedures for welding?
A. I don't recall.
Q. Does Chart have specifications for the welds on its cryogenic freezers?
A. I believe they do, yes.
Q. Are those documented somewhere?
A. Yes.
Q. Where?
A. I would think MasterControl.

Page 00072

Plaintiffs Objections 602 - speculation; 402/403 - relevance, wastes time:

Q. And you found instructions for manufacturing open top tanks; correct?
A. I found ones that were active today, yes.
Q. Did those instructions include welding procedures?
A. The instructions are the procedures. Are you asking something more specific?
Q. Yes. I was asking specifically whether the instructions include welding procedures?
A. That I don't recall. I'd have to go back and look at those.

(continued page 00073)

0073

Q. Returning to welding specifications, what documents would those be contained in?

A. I believe we call those WPSs.
Q. What does that stand for?
A. I'm not entirely sure. I think it's weld parameter specifications, I think.

Page 00073

Q. When Chart hires a new welder, what documents are provided to the new welder regarding welding?

(continued page 00074)

0074

A. That I don't know.
Q. Would a new welder receive training at Chart?
A. They would -- if they were a new welder hired as a welder, they would pass the weld test. There wouldn't be any weld training, no.
Q. Would they receive any training at all though?
A. They would receive on-the-job training. So whatever the assignment, the position they were put into, they would receive training on how to do that or what the expectation may be.
Q. Is there -- is there a formal training process for new welders?
A. There is not to my knowledge, no.
Q. Would a new welder be assigned to shadow a current welder?
A. Typically that -- that's what we do. We have them shadow for approximately a week.
Q. Is a new welder given any welding procedure documents?
A. That I don't know.
Q. Are -- is a new welder informed about any welding standards or specifications required at Chart?

23: A. I don't know.
24: Q. Who would know that?
25: A. I don't know.

Page 00075

01: Q. Who would you ask to find that out?
02: A. I would probably start with my supervisor.
03: Q. Who is that?
04: A. That was Kyle Eubanks.
05: Q. Would you ask the welders?
06: A. No. I would typically go to my supervisor
07: first.
08: Q. Do you think the welders would know?
09: A. Maybe.
10: Q. Do you think the production supervisor would
11: know?
12: A. He would know if he used any documents like
13: that in training, yes.
14: Q. Does the production supervisor train new
15: welders?
16: A. He is the one that puts them in assignment and
17: pairs them with whoever he shadows. So ultimately I
18: hold him responsible.

Page 00076

Plaintiffs Objections 402/403 - relevance, wastes time:
25: Q. Do you think that Chart has documentation for

(continued page 00077)

0077
01: the settings to be used on its welding machines?
02: A. We do, yes.

Page 00078

Plaintiffs Objections 602 - speculation:
20: Q. What is Buster Ingram's role?

21: A. Currently he is a CI technician.

22: Q. Was he something previous to being a CI?

23: A. He would have been a welder previous to that.

24: Q. How long has Buster been with Chart?

25: A. I don't know.

(continued page 00079)

0079

01: Q. Is it a long time?

02: A. Yeah, it's a long time.

03: Q. Decades?

04: A. Yes, decades.

Page 00079

Plaintiffs Objections 602 - speculation; 402/403 - relevance, wastes time:

23: Q. What do you understand settings for the welder

24: to mean?

25: A. Settings for the welder would be basically

(continued page 00080)

0080

01: voltage and amp control, I believe. I think that's all

02: you can set on them.

03: Q. And would there be a single set of settings for

04: a particular tank?

05: A. No. It would probably be a general range.

06: Q. Okay. Would the settings vary by the

07: particular weld?

08: A. Possibly. Or the welder. The person.

Defense Counters Adams Deposition Ex. 665 is Trial Exhibit 185:

09: MS. ZEMAN: Okay. Rob, if you could enter as

10: exhibit -- are we on Plaintiffs' 665 I think -- the

11: document with the Bates stamp of CHART000088.

12: THE VIDEOGRAPHER: One moment, please.

13: MS. ZEMAN: Sure.

14: (Plaintiffs' Exhibit 665 marked for

15: identification.)

Page 00080

Plaintiffs Objections 402/403 - relevance, wastes time (subsequent testimony identifies CHART070444 as assembly drawing used in production):

21: Q. Mr. Adams, do you recognize this document?
22: A. Yes.
23: Q. What is this?
24: A. It appears to be a drawing of the MVE 808.
25: Q. And how do you know that?

(continued page 00081)

0081

01: A. By looking in the title block.
02: Q. Is that down at the bottom right of the
03: document?
04: A. Yes. Lower right-hand corner.
05: Q. Is this essentially a design drawing for the
06: MVE 808 tank model?
07: A. Yes. This would be a final. Final level
08: design.
09: Q. Is this document utilized in the production
10: process for the MVE 808?
11: A. By the production team?
12: Q. Anywhere within the production process.
13: A. I don't think we would use it on a daily basis,
14: no.
15: Q. Would the production team on the -- essentially
16: the manufacturing floor use this document?
17: A. Not daily. The QC inspection team would maybe
18: reference it for some of these height dimensions that
19: you see called out.
20: Q. Would the document be used for anything else at
21: Chart?
22: A. Engineering would maybe look at it

periodically, you know, if there's -- if there's a discrepancy in production or quality.

Q. Would a design document like this serve as the

(continued page 00082)

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foundation for assembly instructions?

A. At this level only final assembly.

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Plaintiffs Objections 402/403 - relevance, wastes time, confusing (subsequent testimony identified CHART070444 as assembly drawing used at production):

MR. DUFFY: What's the exhibit number again, Amy?

MS. ZEMAN: This is Exhibit 665. And the Bates number is CHART000088.

MR. DUFFY: Got it. Thank you.

MS. ZEMAN: And I also just dropped it into the chat for everyone.

THE WITNESS: I do not see the annular lines in this drawing.

MS. ZEMAN: Rob, if you could scroll up to the top again.

Q. In the image at the top left, can you see the top of where the annular lines are?

A. The image in the up left, I can see the -- where they would come out of the freezer, yes.

Q. And where is that?

A. That would be in that top ring, what we would

(continued page 00083)

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call the top head. And that's in the upper left-hand corner, in the upper left-hand corner of the drawing as well.

MS. ZEMAN: Okay. If we could close that and

enter as Exhibit 666 CHART070444.

Page 00083

Defense Counters Adams Deposition Ex. 666 is Trial Exhibit 272:

Q. Mr. Adams, do you recognize this document?

A. Yes.

Q. What is this?

A. This would be a drawing of the inner outer assembly.

Q. Does it illustrate one or more of the annular lines?

A. Yes, it does.

Q. Where does it show that?

A. Essentially the top middle of the drawing, the section -- the center section with the tank.

Page 00084

Q. So within the document there are two large depictions of the tank; correct?

A. Yes.

Q. One on the left appears to be looking down from above the tank; is that right?

A. Correct.

Q. And the one on the right appears to be a cutaway with a tank laying on its side; is that correct?

A. Correct.

Q. Which of those two images shows the annular line?

A. The side view that you mentioned last.

Q. Okay. So the one that's a cutaway with the tank laying on its side?

A. Yes.

Q. And is the annular line what we see running across the top of that image horizontally?

24: A. Yes. Between the two walls.
25: Q. Okay. It looks like it's marked with a 26 and

(continued page 00085)

0085

01: a circle with an arrow extending with the circle to the
02: annular line?
03: A. Yes.
04: Q. Okay. And do you know if that's the fill line
05: or the sensor line?
06: A. That I don't know.
07: Q. Are they constructed identically?
08: A. I'm not sure, but they should be.
09: Q. Okay. The intention is that they would be
10: assembled and constructed identically?
11: A. At least very similar, yes.
12: Q. Okay. And at the far right of the annular
13: line, which would be the bottom of the annular line if
14: the tank were upright, is the number 30 pointing at the
15: fitting that attaches the annular line to the inner
16: vessel?
17: A. Yes.

Page 00089

13: Does the fitting need to be attached to the
14: inner vessel in order for it to operate as intended?
15: A. I would think so, yes.
16: Q. If the fitting broke away from the inner
17: vessel, would the tank operate as intended?
18: A. No.

Page 00090

09: Q. One of the annular lines on the MVE 808 is used
10: to fill the tank with liquid nitrogen; correct?

11: A. I believe so, yes.
12: Q. Is that annular line that's used for filling
13: the tank straight?
14: A. Once in the annular space, it is straight. I
15: think so.
16: Q. Would you expect it to be curved in any way?
17: A. No.

Page 00091

06: Q. Do you know what a full penetration weld is?
07: A. I'm familiar with the term, yes.
08: Q. What does it mean?
09: A. It means when the weld fully penetrates the
10: base material.

Page 00091

Plaintiffs Objections 402/403 - relevance, wastes time, confusing:
Defense Counters Begin with "Under what circumstances…":
17: your discussions with counsel. Under what circumstances
18: is a full penetration weld required?
19: A. To my knowledge, typically it's a code
20: requirement.
21: Q. What code?
22: A. What comes to mind is in our industrial
23: division down the street like an ASME code or a PED
24: code, a pressure vessel code would typically require
25: that.

Page 00092

Plaintiffs Objections 402/403 - relevance, wastes time:
10: Q. How can you verify that a full penetration weld
11: has been applied?
12: A. To my knowledge using an x-ray.

Page 00100

16: Q. Are there quality assurance measures in place
17: at the 3055 facility to ensure welds are applied

properly?
A. Yes.
Q. What are those measures?
A. I would say our helium leak detection.
Q. Anything else?
A. Other than a visual quality, no.
Q. What visual quality inspection would be done of the welds?

(continued page 00101)

0101

A. They would -- we would look at the weld for either a pinhole or a gap, a missed section, or any type of inclusions that are very obvious and don't belong.
Q. And would each weld be inspected as it was completed, or would there just be an inspection once the tank was generally complete?
A. Typically the welds are inspected by the person applying the weld.
Q. So essentially the welder would apply a weld and then inspect it after finishing the process to confirm it was done correctly?
A. Correct.
Q. And then would the welds that are visible be visually inspected when the tank was completed in full?
A. Those that are easily accessible, yes.
Typically around the outside we always give one final visual inspection more so for aesthetics so it's visually pleasing to the customer.
Q. So that inspection would not necessarily be looking for gaps, pinholes, or inclusions?
A. It would, but from an aesthetics standpoint.

22: If there was a black mark that was stuck in the weld
23: that needed to be, you know, buffed out by hand, for
24: example.

Plaintiffs Objections 402/403 - relevance, wastes time:

25: Q. And who does that final inspection?

(continued page 00102)

0102

01: A. Typically that's kind of done by both our
02: quality technician and whomever is doing any of the
03: final prep that wipes the tank down, cleans it, puts
04: labels. They're all sort of tasked with visual
05: inspection.
06: Q. Is there also a heated mass spectrometer test
07: completed?
08: A. Did you -- a heated mass spectrometer? I'm not
09: familiar with that term. We do use a mass spectrometer.
10: That is the helium leak detection.
11: Q. Ah. That may have been a typo on my part for
12: helium mass spectrometer test.
13: A. That would be correct. It would be a helium
14: mass spectrometer test.
15: Q. Okay. And is that the helium leak test that
16: you referred to earlier?
17: A. Yes.
18: Q. And who conducts that test?
19: A. We have a -- what we call a mass spec operator.
20: Q. Is that a single person who does the test on
21: various tanks?
22: A. Yeah. It's one person for all tanks.
23: Q. Who is that person currently?
24: A. Currently that is Tony Childers.
25: Q. And how long has Tony Childers done that?

(continued page 00103)

0103

A. I don't know.
Q. Has it been a long time?
A. Yes.
Q. Has it been decades?
A. He's been with the company decades. I don't know if he's done that job decades.
Q. Okay. Does Chart do a warm vacuum test on the tanks after manufacture?
A. After our evacuation process, yes.
Q. What is that testing for?
A. It basically ensures that the vacuum that we placed on the tank meets our standards, our expectations. And that's directly coming off the evacuation manifold.
Q. And that's referring to what should be the final vacuum that's pulled before the tank is shipped out; correct?
A. Correct. That is the vacuum level that the customer will receive with the freezer.
Q. And who conducts that test?
A. That is also Tony.
Q. Does Chart do anything to measure the weld thickness on any of the weld lines on an open top tank?
A. Typically, no.
Q. Is there a way to do so?

(continued page 00104)

0104

A. I'm sure there's a way, but I wouldn't be familiar with it.

Q. Is the helium leak test done to each tank produced at the 3055 facility?
A. Yes. Every freezer produced receives a helium mass spec check -- leak check.
Q. And is the warm vacuum test done to every tank?
A. Yes. Warm vacuum is done to every freezer as well.
Q. And the visual inspection is done on every tank?
A. Yes.
Q. Do the welders receive performance reviews?
A. Yes.
Q. Who conducts those reviews?
A. The supervisor does.
Q. For the open top tanks would that be Kyle Eubanks?
A. Currently, yes.
Q. When the supervisor used to be a hybrid position -- do you know what I'm referring to?
A. I do not.
Q. I think you had referred to earlier before Kyle took the position there was I believe Timothy?
A. Yes. The production manager, yes. Timothy

(continued page 00105)

Logan.
Q. Thank you for the recollection. Would the production manager at any point have done the performance reviews for the welders?
A. Yes, he would have done them.
Q. So production manager and the production

supervisor may have done welder performance reviews over the years; is that correct?

A. Correct.

Page 00106

Plaintiffs Objections 402/403 - relevance, wastes time:

Q. Are you aware of any instance where a weld failed to seal?

A. Yes.

Q. When?

A. Typically at our mass spec station, that's specifically what it's designed to do is to pinpoint any welds that aren't sealed properly.

Page 00107

Defense Objections Dissimilar other occurrence; MIL No. 1; weld failed because of customer abuse; customer put a hole in the stainless steel:

Q. Okay. Are you aware of any instances where a weld failed after a tank was shipped out of the production facility?

A. We -- outside of this one?

Q. Outside of this subject tank in this litigation, correct.

A. Right. We've had them. We've had one recently due to customer abuse.

Q. What sort of abuse?

A. They had abused the inner wall in a manner that they basically put a hole through the stainless.

Page 00108

Defense Objections Objection to "Excluding the subject tan in this litigation"; This is argumentative and the witness has not seen the subject tank; the question starts with "are you aware…"; references a 2020 incident with an unknown model tank; dissimilar other occurrence; MIL No. 1.:

Q. Excluding the subject tank in this litigation, are you aware of any instance where a cryogenic freezer became deformed after production?

A. After production in customer usage?
Q. Sure.
A. Yes. The one I just mentioned. It was due to abuse.
Q. And the one you mentioned had a hole placed in the inner vessel; correct?
A. Correct.
Q. How did that happen?
A. We don't know exactly. We can only assume what happened.
Q. When did you learn of that instance?
A. That tank was earlier this year. Probably

(continued page 00109)

around March.
Q. How big is the hole in it?
A. It's fairly tiny.
Q. Where is the hole located?
A. I think it was approximately 6 inches down from the top.
Q. Is it in a weld line?
A. No.
Q. Is it just in the sheet of stainless steel?
A. Yes.
Q. Have you seen that tank?
A. Yes.
Q. How is it deformed?
A. The whole inner shell is -- how do I describe it -- what we would call imploded.
Q. Have you ever seen that before?
A. That was the -- that's the only one I've seen.
Q. How extensive is the deformation?
A. I don't know how to define. I mean, it's no longer usable. It's not repairable.

21: Q. What do you think caused the deformation?
22: A. That was -- that was the inner -- excuse me --
23: I mean, the hole in the inner, I'm presuming caused, you
24: know, it was a leak to the vacuum space. And without
25: understanding the true science of what goes on, it's

(continued page 00110)

0110

01: either the cold temperature inside that drew the metal
02: in or liquid got into that space and caused a slight
03: pressure build, enough to push the inner out. I don't
04: know enough about that to be 100 percent sure.
05: Q. Are you aware of any other reasons it might
06: have deformed?
07: A. Those are the only two I can think of.
08: Q. What model of tank was that?
09: A. That I don't recall. It was an open top
10: though.

Page 00111

Defense Objections Dissimilar other occurrence from March 2020; MIL No. 1; customer put a hole in the stainless steel:

05: Q. I see. Where is that tank now?
06: A. That should be scrapped now.
07: Q. Does that mean it's been destroyed?
08: A. Yes.
09: Q. Did Chart do any root cause analysis on that
10: tank?
11: A. Other than our visual inspection and we quickly
12: noticed the customer abuse to it, we weren't able to do
13: any further analysis on it.

Defense Counters Contingent on whether evidence of 2020 tank that was hammered on is admitted:

14: Q. How did Chart determine that there had been
15: customer abuse?
16: A. By looking at the inner walls, it was very
17: obvious.
18: Q. Were there scuff marks on the inner vessel?

19: A. Yes. Very, very deep scuff marks on two
20: opposing sides of the vessel and other markings that
21: appeared like a hammer. But that is pure assumption.

Defense Objections Dissimilar other occurrence from March 2020; MIL No. 1; customer put a hole in the stainless steel:

22: Q. Was that tank returned to Chart?
23: A. Yes.

Page 00113

Defense Counters Contingent on whether evidence of 2020 tank that was hammered on is admitted:

05: Q. Did Chart document its conclusions about that
06: tank?
07: A. I believe we did, yes.

Page 00114

04: Q. Excluding the subject tank in this litigation,

Plaintiffs Objections 106 - incomplete excerpt; 402/403 - relevance, misleading, prejudicial, confusing:

05: are you aware of any instance where the weld failed
06: where the annular tube attaches to the inner vessel in a
07: Chart tank?
08: A. No.

Page 00115

Defense Objections See objections to Trial Exhibit 192; to the extent this includes post-remedial measures taken in December 2018, it is objectionable per FRE 407:

23: Q. Great. Thank you. Mr. Adams, do you recognize
24: this document?
25: A. It appears to be a risk analysis.

(continued page 00116)

0116

01: Q. What is a risk analysis?
02: A. It's usually a collection of PFMEA, DFMEA.
03: It's sort of documenting the construction, the use, and
04: the risks associated assigning severity and occurrence.
05: Q. And does this document apply to the MVE 808
06: document -- or tank?

07: A. I see that it's for the HECO, VARIO, and
08: CRYOSYSTEMS FULL AUTO. So I don't know that it applies
09: to the 808 specifically.
10: Q. Is the 808 -- let me -- sorry. Allow me to
11: rephrase that. So this applies to the MVE cryogenic
12: freezers; correct?
13: A. Yes.
14: Q. And the MVE 808 is an MVE cryogenic freezer?
15: A. It is, but all of these products are branded
16: MVE.

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Plaintiffs Objections 402/403 - relevance, wastes time, confusing. See Chart's Response to RFA Set 5 Nos. 15 and 16.: Defense Counters Contingent on whether Trial Exhibit 192 is admitted; this testimony explains that this version of was created in December 2018, post-incident:

21: Q. And is there anything in the document that
22: would show you when this version was created?
23: A. I notice there is -- there's a Risk Activities
24: tab that has dates. Last one in red says December of --
25: it looks like December 14th, 2018.

(continued page 00118)

0118

01: Q. And so your interpretation is that that would
02: be the last edit date for this?
03: A. Based on this file, yes.
04: Q. And is there anything in the document that
05: indicates to you what edits were made on December 14th
06: of 2018?
07: A. It just says "Cassie Bartz (Regulatory)."

Page 00128

Plaintiffs Objections 402/403 - relevance, wastes time:

16: Q. Are the weld -- are the current welding
17: parameter documents intended to be posted in the
18: production area?

A. We no longer keep those posted because we have MasterControl available on PCs. So the supervisors are able to go and print out a copy and you see the print and date stamp.

Q. At some point were they physically posted in the production area?

A. Yes.